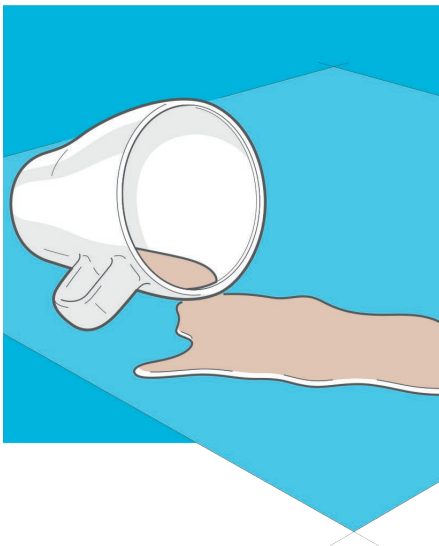


MAINTENANCE GUIDE



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Contents

- Introduction
- Specifying Carpet for Maintenance Ease
- Barrier mats for Preventative Maintenance
- Identifying your Maintenance Needs
- Effective Daily Maintenance
- Appearance Management
- Restorative Cleaning methods
- Contact Us

Introduction

Milliken modular carpet is designed and manufactured to cope with the most demanding of working environments and has an extended life span. However, like any contract carpet, it will begin to lose its original appearance unless it is properly maintained. Effective maintenance increases the lifespan of your flooring, reducing life cycle costs and environmental impact. Maintenance techniques must, however, be tailored to meet the needs of each location. This guide is designed to help with this. Our Support Service team is on call for advice on any matter concerning the use of the carpet.

Support Service Team:
T 01942 612 735

Specifying Carpet for Maintenance Ease

Selecting the right products from the outset greatly influences the ability to maintain appearance with time. Milliken Modular Carpet incorporates the following features for ease of maintenance:

Treatment: StainSmart®

This combines fluorochemical treatment, with a stain blocker which is then heat set onto the fibres for maximum durability and efficacy. This unique surface treatment acts in many ways;

- Helps prevent dry re-soiling of the fibre from dust and dirt.
- Improves soil repellence, to enable food and oily spills to be cleaned easily when they first occur.
- Keeps liquid spills on the surface for ease of removal.
- Assists "stain blocking" by taking up the available dye sites where stains can lock into the fibres. This prevents permanent staining.

Benefits of Colour & Pattern

Colour and pattern selection also go a long way in disguising soiling and maintaining an acceptable appearance. Pattern has numerous benefits, including creating mood, adding a textural dimension, and enhancing broadloom appearance. However, one of the most important aspects is the ability to distract from soiling and staining, maintaining an attractive appearance for the life of the product. In this way, pattern and its soil-hiding properties can do more for the environment - by extending the life of the carpet more than any other single design feature. Whether pattern is created through Millitron™ digital colour placement or through the use of solution dyed yarns, maintenance benefits can be achieved in the following ways.

- Create tonal variation within colours for the most effective way of hiding soiling/stains.
- Break up larger areas of the floor plane with design to disguise soiling and stains.
- Effectively disguise soiling, whether small or large scale.
- Introducing black within the pattern, even for subtle small elements, will make it more effective at soil and stain hiding.
- Darker, duller colours are most effective at maintaining appearance, whilst very pale, extremely vivid, or extremely dark colours should be avoided.
- Milliken provides light reflectance rating (LRV - Y) values for all products. Generally products with an LRV of between 4 & 12 will provide the most practical solutions for maintainability.

Barrier Matting for Preventative Maintenance

It is well documented that 70%-80% of dirt in a commercial or public building has been carried in by pedestrian traffic. As a result, floor covering is undoubtedly the most abused design element in any facility. Good use of barrier matting helps collect dirt from the outside environment, preventing it being tracked throughout the building - saving on cleaning costs and helping preserve a higher perception of overall cleanliness.

Research shows that a textile mat of 7 metres in length will typically remove 92% of the dirt from shoes. Not all entrances will allow for this, but nevertheless, sensible actions can be taken.

- Barrier matting in front of entrance doors must extend over the full width of the door so that they cannot be bypassed. As a minimum, barriers should be large enough to allow for 5 steps across the matting to remove as much soil and moisture as possible. Typically, this will be at least 2.5 meters, and should follow the pattern of traffic.
- Placing barrier matting in revolving doors is particularly effective, as people tend to shuffle their feet, or at least take short steps, when entering such doors.
- Placing barrier mats inside lifts, or at the top and bottom of escalators will prevent dirt ingress into upper floors of a building.
- Using entrance mats in all restaurants / cafeterias, just inside the kitchen area, prevents staff tracking kitchen bourne grease onto the dining area carpet.
- Barrier mats must be vacuumed regularly to maintain their efficacy.

In order to protect your carpet from damaging grit, dust, dirt and moisture, Milliken has developed a system of barrier matting products - '**Milliken Obex**'.

External Matwells: 'Prior' is a flexible modular matting product installed as primary matting within a matwell or surface mounted with a secured edging system. The overlapping heel-safe parallel circle design, incorporating resilient scrapers, makes the product extremely durable and highly effective at trapping dirt and draining water.

Internal Matwells: 'Forma' combines the flexible Prior module with the Milliken Obex textile. Forma ideally fits into matwells with a minimum of waste, or can be surface mounted with a secured edging system. The combination of the heel-safe open circle design and the unique textile construction makes it truly efficient in trapping dirt and moisture.

Zone Textile Matting: 'Atrium Plus' is available in roll form and is suitable in areas where a textile scraper matting product is preferred. Atrium can be installed alongside Milliken carpet in staff entrances, circulation zones, vending areas or main entrances, where there is no matwell. Atrium Plus is aesthetically pleasing and has excellent function, with unparalleled performance in scraping, absorbing and concealing dirt and moisture.

Zone Textile Quadrus Modular Tiles

General

The OBEX textiles are specifically designed to remove the maximum amount of tracked in dirt particles. The high twist and heat set fibres tufted in an open pile construction are excellent at trapping soil and moisture and therefore thorough cleaning is essential to ensure optimum performance and to extend the life of the product. The textiles will by their nature be the most abused of all floor covering finishes within the building. We therefore recommend the following maintenance regime.

Daily Cleaning

Daily use of a powerful upright vacuum cleaner will remove loose dirt thanks to its rotary brush action. An additional benefit of the brush action is to groom the pile thus helping to reduce pile flattening. We do not recommend the use of a suction only machine such as a tub vacuum cleaner because it cannot successfully remove dirt, nor will it have the grooming effect on the pile.

Note: A Bonnet Buffing type machine should not be used (could cause untwisting of the pile construction).

Periodic Cleaning

The frequency of deep cleaning will depend upon site conditions and the volume of traffic over the entry system, as well as evidence of soiling patterns.

Vacuum thoroughly before using a hot water extraction machine. The water temperature should not exceed 122°F.

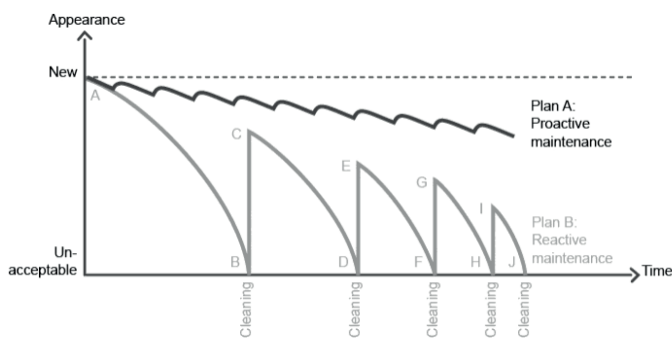
For chewing gum removal, we recommend the use of Bye Bye Gum, Rid A Gum or a similar product.

Individual Loose Laid Mats: 'Atrium Plus' mats with rubber backing are suitable when individual mats are preferred. This is a flexible mat for protecting floor coverings throughout a building. The nitrile rubber backing can be manufactured with a gripper that minimises mat movement on carpet, or a flat back for hard floor applications.

HOW TO LOOK AFTER YOUR CARPET

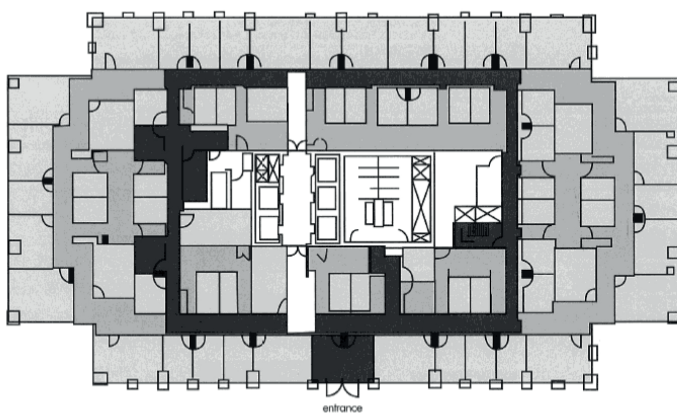
Proactive Maintenance

Proactive, regularly scheduled maintenance removes soil before it can build up and cause damage to the carpet fibres. This can actually extend the life of the carpet by maintaining an acceptable appearance for longer. Reactive maintenance, which is only carried out after a carpet has deteriorated with heavy soiling, cannot fully restore a carpet to 'like new' appearance.



Identifying Your Maintenance Needs

Different areas of your interior are subject to different types and levels of use, and this will determine the level and frequency of maintenance needed. For example, areas of heavy traffic will be soiled more quickly, and more severely than areas of light usage, and will need daily vacuuming. Similarly, areas around drinks vending machines and within restaurants will need daily spot cleaning.



Light traffic areas clean 2 times a year Moderate traffic areas clean 4 times a year Heavy traffic areas clean 12 times a year Typical light, medium and heavy traffic areas

Heavy traffic areas include: entrances, lifts, reception areas, busy corridors, cafeterias, vending machine areas, employee lounges.

Light traffic areas should be vacuumed about twice per week (low occupancy offices, conference rooms, etc).

Effective Daily Maintenance

Vacuum Cleaning

An effective vacuum cleaning program is essential to the success of any maintenance plan. Vacuuming removes abrasive dirt particles, preventing them from abrading fibres and causing permanent damage.

- We recommend an upright dual motor vacuum cleaner. These machines, with independent motors for suction and brushing, are the most effective. The rotary brush action knocks the dirt loose so that the vacuum can lift it out of the carpet. The brushes should be set so that they are in contact with the pile surface. An additional benefit of this brush action is to groom the carpet pile, thus helping to reduce pile flattening.
- It is preferable not to use single motor suction-only machines, such as a tub vac, as these will only remove surface debris, and not embedded dirt, which can contribute to pile flattening. Tub vacuums are ineffective with modular carpet constructions due to the dense pile and impervious backing, which prevent air flow through the product.
- Vacuum bags should be emptied regularly and all housekeeping personnel should be made aware of this.

Please note that Bonnet cleaning is NOT an approved cleaning method for Milliken carpets. The rotary action of this method can cause permanent damage to the face of the carpet, and will invalidate Milliken Warranties.

Spot and Stain Removal

Daily removal of spots and spills helps to maintain the carpets appearance between scheduled cleaning. Since spots are unsightly and detract from the carpet appearance it is worth taking quick action against these. This also reduces the likelihood of a permanent stain.

Water-based stains

Most spots and stains are water-based (e.g. tea, coffee, soft drinks, wine) and can be removed using Milliken Easi-Step prespray or equivalent.

- Ideally, avoid letting the spill dry, and remove as much of the liquid as possible, by blotting on a dry cloth when the spill first occurs. For thicker spills, remove the majority of the substance with a spoon or spatula first.
- Blot the stain with absorbent paper towels or cloth. When no more liquid is removed, mist with Milliken Easi-Step to rehydrate and dilute the residue of the spill and repeat.
- Avoid harsh rubbing of the carpet.
- Any residual stain can then be treated as part of a daily removal procedure. Where it is not practical to catch all spills as they happen, it is preferable to adopt a daily regular spot removal procedure.
- Apply prespray to the dry stain and brush in. Allow 30 seconds to activate then remove by blotting with a dry cloth.
- Apply Capture dry cleaning powder to the presprayed carpet and brush in, leave to absorb the stain for several minutes, then vacuum out.

Milliken does not accept liability for colour loss or fibre damage due to incorrect cleaning solutions.

Oil based stains

Certain oily/greasy stains should be treated with a solvent based removal product, such as Prochem Solvall, followed by Capture® powder or similar to remove solvent residue.

- Apply to a cloth and dab gently from the outside to avoid spreading the stain.

Chewing gum

Chewing gum can be removed with a specialist spray removal product. This freezes the gum and enables it to be scraped off using a spatula or blunt knife.

Appearance Management

Most areas never need wet cleaning, and it is a waste of effort and resources to do so. There are many places in every location where soiling levels are only light. You will know where these areas are in your own establishment, but typically they include conference rooms, internal corridors, and offices. However, there is no doubt that periodically, it will be necessary to carry out light maintenance of carpets in these areas, simply to brighten the colours. Atmospheric pollution contains grease borne soils, which tend to make colours less vivid and generally reduce the vibrancy of the

carpet. These soils can easily be removed, and the colours thus significantly brightened by implementing a programme of cleaning with Milliken's Capture. Use of Capture offers excellent cleaning with rapid drying and minimum interference to your guests and your normal day-to-day operations. It is also one of the quieter cleaning procedures available.

- Capture extraction powder compounds are made up of synthetic polymers or organic soil absorbent substances, and act like micro sponges attracting and absorbing small particles of soil, including oily soils, which are then removed with the powder on vacuuming.
- In addition to being a highly effective cleaning method, Capture cleaning with dry powder extraction uses significantly less water and energy than the alternative methods listed, which is better for the environment.

Use of alternative cleaning products

- If alternative removal products are used, a test should be done to check for colour bleed from the carpet fibres. Any alternative prespray or detergent should have a pH between 6.5 and 8.5, and the carpet should be left with a Neutral pH 7 at the end of cleaning. We recommend you look for products that have been tested and approved by the Woolsafe organisation www.woolsafe.org.
- Chlorine bleach must NOT be used on most Milliken products. Contact the Milliken Support Services Team for details of Chlorine bleach resistant product lines.

Restorative Maintenance

Inevitably, there are some areas that will need more aggressive cleaning. These include all areas where food and beverages are consumed, and areas in close proximity to external doors.

In areas close to doors, begin by pile lifting. This makes use of a two motor vacuum cleaner – one to drive the brush and the other to provide the suction. A pile lifter resembles a conventional upright vacuum cleaner, except that it is pulled backwards over the carpet, towards the operative and against the lay of the carpet. In this way, the pile is opened up, and large amounts of particulate dirt left behind by inefficient daily cleaning, can be removed from the base of the pile where it is likely to cause abrasive damage.

Where food and beverage spillages are concerned, the first step should always be concerned with stain removal. If you have implemented the good housekeeping and daily maintenance procedures recommended earlier, spot and stain removal should require a minimum of effort at this stage.

Hot Water Spray Extraction Cleaning

This method offers a very effective way to remove heavy soiling;

- Hot or warm water and detergent are sprayed onto the carpet tiles under high pressure; the same machine is then used to vacuum up the excess water, detergent and soil. The carpet tiles will need up to 24 hours to dry and should not be walked on until they are completely dry.
- Begin by using a prespray over all areas to be cleaned. This increases the contact time of the detergent and increases cleaning efficiency.
- Allow the prespray to remain in contact with the pile for approximately ten minutes before extracting with a good spray extraction machine (ten minutes is the recommended time to obtain maximum efficiency; more than this and the prespray will begin to dry out, reducing its effectiveness).
- A system of working should be developed, whereby one area of the room is presprayed, awaiting cleaning, whilst an adjacent area is being cleaned.
- Drying rates can be improved by increasing ventilation or using air movers.

This method can be effective when carried out correctly, however potential disadvantages include;

- Over-wetting the carpet tiles can lead to tile curling, rapid re-soiling or mildew and odour, where the carpet tiles take a long period to dry out.

Note: this method raises the humidity within the room making it unsuitable for computer rooms. It is also unsuitable for raised access flooring, as the flooring is not guaranteed to be watertight, and the electric cables can be affected. Adhesives, which may be used during the laying of the carpet tiles, can sometimes be affected by water.

Milliken cannot be held responsible for any damage caused by over-wetting.

- As detergent may be used with these methods, there may also be a tendency for inexperienced operators to over apply detergent in the belief that this will provide a more effective clean. Over application of detergent can lead to a detergent residue being left on the fibres, which will attract rapid resoiling - causing loss of appearance.

Who to call for assistance

Milliken is committed to service and quality. We believe that maintenance is an integral part of specifying and purchasing a carpet, and so offer a dedicated Support Service Team, experienced in technical and practical aspects of carpet management. To obtain cleaning products, or to receive further information, please contact:

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